

AMENDMENTS TO THE CLAIMS

Claims 1-2, 8-12 and 50 are currently pending in this application with entry of this amendment. Claims 3-7 and 13-49 have been withdrawn.

1. (Currently Amended) A method of screening for an agent that modulates bone mineralization, said method comprising:
contacting [a] an osteogenic cell containing a NELL-1 gene with a test agent; and detecting an expression level of said NELL-1 gene in the contacted cell, where a difference in the expression level of NELL-1 in the contacted cell compared to an expression level of NELL-1 in a cell that is not contacted indicates that said test agent is an agent that modulates bone mineralization.

2. (Previously Amended) The method of claim 1, further comprising recording agents that modulate expressions of the NELL-1 nucleic acid or NELL-1 protein in a database of modulators of NELL-1 activity or in a database of modulators of bone mineralization.

Claims 3-7 (withdrawn)

8. (Original) The method of claim 1, wherein said level of NELL-1 is detected by determining the expression level of a NELL-1 protein in said biological sample.

9. (Original) The method of claim 8, wherein said detecting is via a method selected from the group consisting of capillary electrophoresis, a Western blot, mass spectroscopy, ELISA, immunochromatography, and immunohistochemistry.

10. (Original) The method of claim 1, wherein said cell is cultured ex vivo.

11. (Original) The method of claim 1, wherein said test agent is not an antibody.

12. (Original) The method of claim 1, wherein said test agent is not a protein.

Claims 13-49 (withdrawn)

50. (New) The method of claim 1, wherein the osteogenic cell is selected from the group comprising an osteoblast, a mesenchymal cell, a fibroblast cell, a fetal embryonic cell, a stem cell, a bone marrow cell, a dura cell, a chondrocyte, a chondroblast, fetal calvarial osteoblastic cell, or a MC3T3 cell.